

## SEQUENCE LISTING

<110> Munger, Karl and Syken, Josh	
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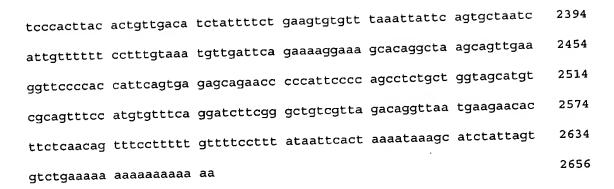
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Glu 465	Asp	Glu	Glu	Gly	Phe 470	Leu	Ser	Lys	Leu	Lys 475	Lys	Met	Phe	Thr	Ser 480	
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	(ix)	(1 ) MO: ) FE: (2	D) TO LECU: ATUR! A) N. B) L	OPOLO LE T E: AME/ OCAT	OGY: YPE: KEY: ION:	line mRNZ CDS	ear A 1440	rele								
ATG	(ix)	(1 ) MO: ) FE: (; () SE: GCG	D) TO LECUTATURE A) N. B) LO QUENO CGG	DPOLO LE T E: AME/: OCAT CE D: TGC	OGY: YPE: KEY: ION: ESCR TCC	line mRNA CDS 1 IPTIC ACA	ear A 1440 ON: 8	SEQ :	ID NO TTG	0:2: CTG	GTG	GTT	GTG	GGG	ACC	4.8
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Met 1 CCG Pro	(ix) (xi) GCT Ala CGG Arg	(1) MO: ) FE: (2) (2) SE: GCG Ala CTG	D) TO LECUTATURI A) N. B) Lo QUENO CGG Arg CCG Pro 20	OPOLO LE T E: AME/I OCAT CE D TGC Cys SGCT Ala	OGY: YPE: KEY: ION: ESCR TCC Ser ATA Ile	CDS 1 IPTIC ACA Thr	ear A 1440 ON: 6 CGC Arg GGT Gly	SEQ TGG Trp AGA Arg 25	ID No TTG Leu 10 GGG Gly	O:2: CTG Leu GCC Ala	Val CGG Arg	Val CCG Pro	CCC Pro	Gly 15 AGG Arg	Thr GAG Glu	
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Met CCG Pro GGC Gly	(ix) (xi) GCT Ala CGG Arg GTG Val	(I) MO: ) FE. (I) ) SE- GCG Ala CTG Leu GTG Val 35	D) TO LECUTATURE A) N. B) Lo QUENO CGG Arg CCG Pro 20 GGG Gly	OPOLO LE TO E: AME/OCAT CE DO TGC Cys SCT Ala GCA Ala	OGY: YPE: KEY: ION: ESCR TCC Ser ATA Ile TGG Trp	CDS 1: IPTIC ACA Thr TCG Ser CTG Leu	ear 1440 ON: S CGC Arg GGT Gly AGC Ser 40	SEQ TGG Trp AGA Arg 25 CGC Arg	ID No TTG Leu 10 GGG Gly AAG Lys	O:2: CTG Leu GCC Ala CTG Leu	CGG Arg AGC Ser	CCG Pro GTC Val	CCC Pro 30 CCC Pro	Gly 15 AGG Arg GCC Ala	GAG Glu TTT Phe	96
Met 1 CCG Pro GGC Gly GCG Ala	(ix) (xi) GCT Ala CGG Arg GTG Val TCT Ser 50	(I) MOI ) FE (I) ) SE GCG Ala CTG Leu GTG Val 35 TCC Ser	D) TO LECUTATURE A) N. B) LO QUENO CGG Arg CCG Pro 20 GGG Gly CTG Leu	DPOLI LE T E: AME/I OCAT CE D TGC Cys 5 GCT Ala GCA Ala	OGY: YPE: KEY: ION: ESCR TCC Ser ATA Ile TGG Trp TCT Ser	CDS 1 IPTIC ACA Thr TCG Ser CTG Leu TGC Cys 55	ear A 1440 ON: CGC Arg GGT Gly AGC Ser 40 GGC Gly	SEQ Trp AGA Arg 25 CGC Arg CCC	ID No TTG Leu 10 GGG Gly AAG Lys CGA Arg	O:2: CTG Leu GCC Ala CTG Leu GCG Ala	CGG Arg AGC Ser CTG Leu 60	CCG Pro GTC Val 45 CTG Leu	CCC Pro 30 CCC Pro ACA	Gly 15 AGG Arg GCC Ala TTG Leu	GAG Glu TTT Phe AGA Arg	96 144 192
Met 1 CCG Pro GGC Gly GCG Ala	(ix) (xi) GCT Ala CGG Arg GTG Val TCT Ser 50 GGT	(I) MO: ) FE: (I) ) SE: GCG Ala CTG Leu GTG Val 35 TCC Ser	D) TO LECUTATURE A) N. B) L. QUENO CGG Arg CCG Pro 20 GGG Gly CTG Leu	OPOLO LE T E: AME/ OCAT CE D TGC Cys GCT Ala GCA Ala ACC Thr	OGY: YPE: KEY: ION: ESCR TCC Ser ATA Ile TGG Trp TCT Ser	CDS 1 IPTIC ACA Thr TCG Ser CTG Leu TGC Cys 55 GGA	ear A 1440 ON: CGC Arg GGT Gly AGC Ser 40 GGC Gly ACA	SEQ TGG Trp AGA Arg 25 CGC Arg CCC Pro	ID No TTG Leu 10 GGG Gly AAG Lys CGA Arg	O:2: CTG Leu GCC Ala CTG Leu GCG Ala	CGG Arg AGC Ser CTG Leu 60	CCG Pro GTC Val 45 CTG Leu	Val CCC Pro 30 CCC Pro ACA Thr	Gly 15 AGG Arg GCC Ala TTG Leu	GAG Glu TTT Phe AGA Arg	96 144
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Met 1 CCG Pro GGC Gly GCG Ala CCT Pro 65 GCC Ala	(ix) (xi) GCT Ala CGG Arg GTG Val TCT Ser 50 GGT Gly TCC Ser	(I) MOD (I) FER (I) SER GCG Ala CTG Leu GTG Val GTCC SER GTC Val TTC Phe	D) TO LECUTATURE ATURE A) N. B) Lo QUENO CGG Arg CCG Pro 20 GGG Gly CTG Leu AGC Ser	DPOLUE TO THE TO	OGY: YPE:  KEY: ION: ESCR TCC Ser ATA Ile TGG Trp TCT Ser ACA Thr AGT Ser	CDS 1 IPTIC ACA Thr TCG Ser CTG Leu TGC Cys 55 GGA Gly	ar A 1440 ON: S CGC Arg GGT Gly AGC Ser 40 GGC Gly ACA Thr	SEQ TGG Trp AGA Arg 25 CGC Arg CCC Pro AAA Lys TTG	ID No TTG Leu 10 GGG Gly AAG Lys CGA Arg CAT His GCC Ala	O:2: CTG Leu GCC Ala CTG Leu GCG Ala AAC Asn 75 AAA Lys	CGG Arg AGC Ser CTG Leu 60 CCT Pro	CCG Pro Val 45 CTG Leu TTC Phe	Val CCC Pro 30 CCC Pro ACA Thr ATT Ile	Gly 15 AGG Arg GCC Ala TTG Leu TGT Cys	GAG Glu TTT Phe AGA Arg ACT Thr 80 CAG	96 144 192 240
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Met 1 CCG Pro GGC Gly GCG Ala CCT Pro 65 GCC Ala ATA	(ix) (xi) GCT Ala CGG Arg GTG Val TCT Ser 50 GGT Gly TCC Ser	(I) MOD (I) FER (I) SER (I) SE	D) TO LECULATURE ATURE A) N. B) Lo QUENO CGG Arg CCG Pro 20 GGG Gly CTG Leu AGC Ser	DPOLICE TO THE T	OGY: YPE: KEY: ION: ESCR TCC Ser ATA Ile TGG Trp TCT Ser ACA Thr ACA Thr Ser	CDS 1 IPTIO ACA Thr TCG Ser CTG Leu TGC Cys 55 GGA Gly GCC Ala	AGC GGC Gly ACA Thr	SEQ TGG Trp AGA Arg 25 CGC Arg CCC Pro AAA Lys TTG Leu	ID No TTG Leu 10 GGG Gly AAG Lys CGA Arg CAT His GCC Ala 90 CAG	O:2: CTG Leu GCC Ala CTG Leu GCG Ala AAC Asn 75 AAA Lys	CGG Arg  AGC Ser  CTG Leu 600 CCT Pro	CCG Pro Val 45 CTG Leu TTC Phe GAT Asp	Val CCC Pro 30 CCC Pro ACA Thr ATT Ile	Gly 15 AGG Arg GCC Ala TTG Leu TGT Cys TAT Tyr 95 AAA	GAG Glu TTT Phe AGA Arg ACT Thr 80 CAG	96 144 192 240 288

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Pl	he	Ser		Ser	ser	Pne	GIY	Asp	PIIC	GIII	1111	· u ·	205	F			
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G	тА	гуѕ	GIY	Abii	245		Or,		-1-	250			-		255		
					243	C 2 2	N C C	איזיכי	አልሮ			CCT	TTT	GTG	ATG	CGT	816
G	GC	GGC	TCC	: GGC	ATG	GAA	ACC Mb	TIO	AAC	Thr	Glv	Dro	Phe	Val	Met	Arg	
G	ly	Gly	Ser			GIU	Thr	TTE	ASII	TIIT	GIY	F 1, C	, inc	270		Arg	
				260					265			3 10 6	י איני			רככ	864
Т	'CC	ACG	TGT	' AGG	AGA	TGT	GGT	GGC	CGC	GGC	TCC	AIC	AIC	TIA	Cor	CCC	• • • • • • • • • • • • • • • • • • • •
S	er	Thr	Cys	: Arg	, Arg	Cys	Gly	Gly	Arg	GIA	Ser	TTE	: ite	TIE	per	Pro	
			275					280					200				912
Т	GT	GTO	GTO	TGC	: AGG	GGA	GCA	GGA	CAA	GCC	AAG	CAC	AAA	AAG	CGA	GTG	312
С	'vs	۷a]	. Val	L Cys	Arg	Gly	Ala	Gly	Gln	Ala	Lys	Glr	ı Lys	Lys	Arg	Val	
		290	1				295	,				300	,				
2	TC	አጥር	י רכיי	r GTC	CCI	GCA	GGA	GTC	GAC	GAT	GGC	CAC	3 ACC	GTG	AGG	ATG	960
IV.	110 12+	Tla	Dro	val	Pro	Ala	Glv	val	Glu	Asp	Gly	Glı Glı	n Thr	· Val	. Arg	Met	
				, ,,,		310				_	315	5				320	
_	305	· come	- 00	<b>.</b>	A ACC	ממם:	רידע	TTC	: AT'	ACC	TTC	AGG	GTG	CAG	AAA	AGC	1008
	.CI	37.	1 01.	. T.	7 ACC	, Glu	. Tle	Phe	Tle	Thr	Phe	e Arc	y Val	Glr	Lys	Ser	
F	rc	va.	r Gr	А па:			. 110			330	)	•			335	5	
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(	CCI	GT	3 TT	ا کانات	AGC.	GAC	. 03.	. BC.	A DAY	. Tla	y Wie	s Se	r Ast	Lei	ı Phe	e Ile	
I	rc	va:	l Ph			g Asp	) GTZ	Alc	a Asi	, 116	5 111 s	, DC.	L MDE	350	 1	e Ile	
				340	ס				345			- 20°	n cc			י רידים	1104
7	rci	C AT	A GC	T CAG	G GC	r CTI	r CT	r GG(	3 GG/	A ACA	1 GC	. AG	A GC(	CAC	. Cl	CTG	
5	Ser	: Il	e Al	a Gl	n Ala	a Lei	ı Leı	ı Gly	y Gly	Thi	r Ala	a Ar	g Ala	a Gli	I GI	y Leu	
			3.5	5				36	)				30:	•			
-	ГАС	GA	G AC	G AT	CAA	C GTO	3 AC	3 AT	2 22	c cc	r gg	G AC	T CAG	3 AC	A GA	C CAG	
•	۳v۱	Gl	u Th	r Il	e Ası	n Val	l Thi	r Il	e Pro	o Pro	o Gl	y Th	r Glı	n Thi	r As	p Gln	l
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	raesk Tures	, TI	_ CO	a Me	راي + داي +	יום ע	v Lv	s Gl	v Il	e Pr	o Ar	g Il	e As	n Se	r Ty	r Gly	•
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	389	o -,	, a-	a ar	CI III N	ייב כ ייחות יים	ר כאי	רי אידי	ממי	тар			T CC	A AA	G AG	G CTA	1248
	_ TA(	_ GG	A GA	U UA	∪ IA	~ T1	o u:	- TI	o Tar	g 71	e Ar	σ Va	1 Pr	o Lv	s Ar	g Lev	ı
•	Ty:	r Gl	y As	рні			e ur	9 II	Спу	41	0 AT	J		1	41	5	
					40	<b>5</b>	~ ~-	a	~ ~~			ר פר	יר מא	G GA			1296
	AC(	G AG	C CG	G CA	G CA	G AG	C CT	G AT	C CT	G AG	CTA	ب در	C GA	J GA	- GA	G ACA	

Thr	Ser	Arg	Gln 420	Gln	Ser	Leu	Ile	Leu 425	Ser	Tyr	Ala	Glu	Asp 430	Glu	Thr	
GAT	GTG	GAG	GGG	ACG	GTG	AAC	GGC	GTC	ACC	CTC	ACC	AGC	TCT	GGT	GGC	1344
Asp	Val	Glu 435	Gly	Thr	Val	Asn	Gly	Val	Thr	Leu	Thr	Ser	Ser	GIY	GIĄ	
AGC	ACC	ATG	GAT	AGC	TCC	GCA	GGA	AGC	AAG	GCT	AGG	CGT	GAG	GCT	GGG	1392
Ser	Thr 450	Met	Asp	Ser	Ser	Ala 455	Gly	Ser	Lys	Ala	Arg	Arg	GIu	Ата	GIA	
	GAC							AAA								1440
Glu 465	Asp	Glu	Glu	Gly	Phe 470	Leu	Ser	Lys	Leu	Lys 475	Lys	Met	Phe	Thr	Ser 480	
TGA													14	43		

## (2) INFORMATION FOR SEQ ID NO:8:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 480 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

	()	(1) S	EQUE	ENCE	DESC	KTLI	TON:	SEC	מד ו	NO: 0	) ;			_	
Met 1	Ala	Ala	Arg	Cys 5	Ser	Thr	Arg	Trp	Leu 10	Leu	Val	Val	Val	Gly 15	Thr
Pro	Arg	Leu	Pro 20	Ala	Ile	Ser	Gly	Arg 25	Gly	Ala	Arg	Pro	Pro 30	Arg	Glu
Gly	Val	Val 35	Gly	Ala	Trp	Leu	Ser 40	Arg	Lys	Leu	Ser	Val 45	Pro	Ala	Phe
Ala	Ser 50		Leu	Thr	Ser	Cys 55	Gly	Pro	Arg	Ala	Leu 60	Leu	Thr	Leu	Arg
Pro 65	Gly	Val	Ser	Leu	Thr 70	Gly	Thr	Lys	His	Asn 75	Pro	Phe	Ile	Cys	Thr 80
				85					90					Tyr 95	
			100					105					110	Lys	
		115					120					125		Asp	
	130					135					140			Glu	
145					150					155				Ser	160
				165					170					Lys 175	
			180					185					190	Gly	
		195					200					205		Gln	
	210					215					220			Gly	
225					230					235				Cys	240
				245					250					Tyr 255	
			260					265					270		Arg
		275					280					285			Pro
Cys	Val	Val	Cys	Arg	Gly	Ala	Gly	Gln	Ala	Lys	Gln	Lys	Lys	Arg	Val

	290					295					300					
Met	Ile	Pro	Val	Pro	Ala	Gly	Val	Glu	Asp	Gly	Gln	Thr	Val	Arg	Met	
305					310					315					320	
Pro	Val	Gly	Lys	Arg	Glu	Ile	Phe	Ile	Thr	Phe	Arg	Val	Gln	rys	ser	
				325					330					335		
Pro	Val	Phe	Arg	Arg	Asp	Gly	Ala		Ile	His	Ser	Asp	Leu	Phe	TTE	
			340					345			_		350	<b>a</b> 1	T	
Ser	Ile	Ala	Gln	Ala	Leu	Leu	Gly	Gly	Thr	Ala	Arg	Ala	Gin	GIY	Leu	
		355					360		_			365	ml	3	@1 m	
Tyr	Glu	Thr	Ile	Asn	Val	Thr	Ile	Pro	Pro	Gly	Thr	GIN	Thr	Asp	GIII	
	370					375		_	_	_	380	•	<b>0</b>	<b>Т</b>	a1	
Lys	Ile	Arg	Met	Gly		Lys	Gly	Ile	Pro	Arg	тте	Asn	ser	TÀT	400	
385					390			_	-1-	395	T7- 7	Dwo	T 120	7~~		
Tyr	Gly	Asp	His		Ile	His	IIe	ьуs	Ile	Arg	vaı	PIO	пув	415	пеа	
				405		_	<b>-</b> 1 -	T	410	Mh rac	7 J -	Glu	λen		Thr	
Thr	Ser	Arg		GIn	Ser	ьeu	ше	Leu	Ser	1 7 1	нта	Gru	430	OIU	1111	
	_		420	_,			<b>~</b> 1	425	mb	Lou	Thr	Car		Glv	Glv	
Asp	Val		GIY	Thr	vai	Asn			Thr	пеп	1111	445	DCI	027	V-1	
_	-1	435	<b>3</b>		Com	א ז א	440		Lare	Δla	Ara			Ala	Gly	
ser		Met	Asp	ser	Ser	455	GTÅ	261	цуз	Aια	460	**** 5			2	
	450	a1	<b>~</b> 3	a1	Dho		Cor	Tare	T.e.u	Lvs			Phe	Thr	Ser	
	Asp	GIU	GIU	GIY	470	пец	SCI	цys	Dou	475	-1-				480	
465					4/0					1,0						
(2)	INF	יעשמי	rton.	FOD	SEO	ו מד	NO • 3									
(2)					HARA											
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	(xi	) SE	OUEN	CE D	ESCR	IPTI	ON:	SEQ	ID N	0:3:						
ATG	CCT	GCG	CGG	TGC	TCC	ACA	CGC	TGG	TTG	CTG	GTC	GTT	GTG	GGG	ACC	48
Met	Ala	Ala	Arg	Cys	Ser	Thr	Arg	Tr	) Leu	Leu	Val	. Val	. Val	. GIY	rnr	
1				5					10					13	•	
CCG	CGG	CTG	CCG	GCT	ATA	TCG	GGT	AG	A GGG	GCC	CGG	CCC	CCC	AGG	GAG	96
Pro	Arg	Leu	Pro	Ala	Ile	Ser	Gly	Arg	g Gly	Ala	Arc	Pro	Pro	Arg	g Glu	
			20					25					30			144
GGC	GTG	GTG	GGG	GCA	TGG	CTG	AGC	CGG	AAC	CTG	AGO	GTC	CCC	GCC	TTT	144
Gly	v Val	Val	Gly	Ala	Trp	Leu	Ser	Arg	J Lys	Leu	Sei	va.	. Pro	) Ala	a Phe	
		35	,				4 (					45		mm	7 7/7	192
GCG	TCT	TCC	CTG	ACC	TCT	TGC	GGC	CCC	C CGF	A GCG	CTC	3 CTC	ACA	TIC	G AGA	192
Ala	Ser	Ser	Leu	Thr	Ser	Cys	Gl	Pro	o Arg	j Ala	Let	і ге	TIL	с цет	ı Arg	
	50	+				55					60	-	3 2000	n mor	ኮ አረጥ	240
CCI	GGI	GTC	: AGC	CTI	ACA	GGA	AC/	A AA	A CA	' AAC		r TT	. AT.		r ACT	240
Pro	Gly	v Val	Ser	Leu	Thr	Gly	Thi	с Гу	s His	ASI	ı Pro	o Pne	3 TT6	= Cy	s Thr 80	
65	5				70					75			n mar	י אידי יו		288
GCC	TCC	TTC	CAC	: ACC	AGT	GCC	CC:	r TT	G GCC	AAA	A GA	A GA	r TA.	T IA	r CAG	200
Ala	a Ser	Phe	His			Ala	a Pro	o Le	u Ala	а гуя	3 GTI	u AS]	5 т.А.	г ту:	r Gln	
				85	5				90			~ 3 m	O 3.34	.9 מגיי		336
ATA	A TT	GG!	4 GTC	CC3	CGA	AA.	r GC	C AG	CAC	AAA e	A GA	J AT	- AAI	o fir	A GCC	330
Ile	e Lei	ı Gly			Arg	J Ası	n Ala			л гуя	3 GT,	u 11	- гъу	v P⊓å:	s Ala	
			100	)				10					11			
										n ~~ *	~ ~~	A A A	ጥ አአላ	יותים יי	T GAT	384

-9-

Tyr	Tyr	Gln 115	Leu	Ala	Lys	Lys	Tyr 120	His	Pro	Asp	Thr	Asn 125	Lys	Asp	Asp		
CCC	AAA		AAG	GAG	AAG	TTC	TCC	CAG	CTG	GCA	GAA	GCC	TAT	GAG	GTT	43	2
Pro	Lys	Ala	Lys	Glu	Lys	Phe	Ser	Gln	Leu	Ala	Glu	Ala	Tyr	Glu	Val		
	130					135					140						
TTG	AGT	GAT	GAG	GTG	AAG	AGG	AAG	CAG	TAC	GAT	GCC	TAC	GGC	TCT	GCA	48	0
Leu	Ser	Asp	Glu	Val	Lys	Arg	Lys	Gln	Tyr	Asp	Ala	Tyr	Gly	Ser	Ala		
145					150					155					160		
GGC	TTC	GAT	CCT	GGG	GCC	AGC	GGC	TCC	CAG	CAT	AGC	TAC	TGG	AAG	GGA	52	8
Gly	Phe	Asp	Pro	Gly	Ala	Ser	Gly	Ser	Gln	His	Ser	Tyr	Trp	Lys	Gly		
-		_		165					170					175			
GGC	CCC	ACT	GTG	GAC	CCC	GAG	GAG	CTG	TTC	AGG	AAG	ATC	TTT	GGC	GAG	57	6
Gly	Pro	Thr	Val	Asp	Pro	Glu	Glu	Leu	Phe	Arg	Lys	Ile	Phe	Gly	Glu		
-			180					185					190				
TTC	TCA	TÇC	TCT	TCA	TTT	GGA	GAT	TTC	CAG	AÇC	GTG	TTT	GAT	CAG	CCT	62	4
Phe	Ser	Ser	Ser	Ser	Phe	Gly	Asp	Phe	Gln	Thr	Val		Asp	Gln	Pro		
		195					200					205					
CAG	GAA	TAC	TTC	ATG	GAG	TTG	ACA	TTC	AAT	CAA	GCT	GCA	AAG	GGG	GTC	67	2
Gln	Glu	Tyr	Phe	Met	Glu		Thr	Phe	Asn	Gln		Ala	Lys	GIA	vaı		
	210					215					220	~~~	~~~	maa	3 3 C	70	
AAC	AAG	GAG	TTC	ACC	GTG	AAC	ATC	ATG	GAC	ACG	TGT	GAG	CGC	TGC	AAC	72	. 0
	Lys	Glu	Phe	Thr		Asn	Ile	Met	Asp		Cys	GIU	arg	Cys			
225					230					235	CI 3 M	maa	ara.	TIN CI	240	76	Q
GGC	AAG	GGG	AAC	GAG	CCC	GGC	ACC	AAG	GIG	CAG	CAT	TGC	UAC	TAC	Cvc	, 0	, 0
Gly	Lys	Gly	Asn		Pro	GIY	Thr	Lys		GIN	HIS	CAR	ura	255	Cys		
				245	~~~		3 m/d	330	250	aac	CCT	ստա	стс		ССТ	81	6
GGC	GGC	TCC	GGC	ATG	GAA	ACC	ATC	AAC	ACA	GGC	Dro	Dhe	Val	Met	Ara	0.1	
GIY	GIÀ	Ser		мес	GIU	Thr	ire	Asn 265	TILL	GIY	PIO	FIIC	270	MCC	<b></b> 9		
maa	3.00	mam	260	707	тст	ССТ	ccc	CGC	aac	TCC	<b>ል</b> ጥር	אייר		TCG	CCC	86	54
TCC	ACG	TGT	AGG	AGA	Cro	Cla	GUC	Arg	GGC	Ser	Tle	Tle	Tle	Ser	Pro		
ser	inr	275	Arg	Arg	Cys	GTA	280	AT 9	GIY	JCI	110	285					
TOT	стс		тас	AGG	GGA	GCA		CAA	GCĊ	AAG	CAG		AAG	CGA	GTG	91	12
Cvc	1721	Val	Cve	Ara	Glv	Δla	Glv	Gln	Ala	Lvs	Gln	Lvs	Lys	Arq	Val		
Cys	290		Cys	nr 9	<b>U</b> -y	295		<b>4</b>		-1-	300		-	_			
ΔTC	ልጥሮ	ССТ	GTG	ССТ	GCA			GAG	GAT	GGC	CAG	ACC	GTG	AGG	ATG	96	50
Met	Tle	Pro	Val	Pro	Ala	Glv	Val	Glu	Asp	Gly	Gln	Thr	Val	Arg	Met		
305					310	- 1			-	315					320		
CCT	GTG	GGA	AAA	AGG	GAA	ATT	TTC	ATT	ACG	TTC	AGG	GTG	CAG	AAA	AGC	100	80
Pro	Val	Gly	Lys	Arq	Glu	Ile	Phe	Ile	Thr	Phe	Arg	Val	Gln	Lys	Ser		
				325					330					335			
CCT	GTG	TTC	CGG	AGG	GAC	GGC	GCA	GAC	ATC	CAC	TCC	GAC	CTC	TTT	ATT	105	56
Pro	Val	Phe	Arg	Arg	Asp	Gly	Ala	Asp	Ile	His	Ser	Asp	Leu	Phe	Ile		
			340					345					350				
TCT	ATA	GCT	CAG	GCT	CTT	CTT	GGG	GGA	ACA	GCC	AGA	GCC	CAG	GGC	CTG	110	04
Ser	Ile	Ala	Gln	Ala	Leu	Leu	Gly	Gly	Thr	Ala	Arg	Ala	Gln	Gly	Leu		
		355					360					365					- ~
TAC	GAG	ACG	ATC	AAC	GTG	ACG	ATC	CCC	CCT	GGG	ACT	CAG	ACA	GAC	CAG	115	52
Tyr	Glu	Thr	·Ile	Asn	Val	Thr	Ile	Pro	Pro	Gly			Thr	Asp	Gln		
	370					375					380					10	^^
AAG	ATT	, CGG	ATG	GGT	GGG	AAA	GGC	ATC	CCC	CGG	TTA	AAC	AGC	TAC	GGC	12	ŲŪ
_		Arg	Met	Gly			Gly	Ile	Pro			Asn	ser	ıyr	Gly		
385	•				390			<b></b>		395			220	300	400	12	4 0
TAC	GGA	GAC	CAC	TAC	ATC	CAC	ATC	: AAG	ATA	CGA	. 37-7	CCA	AAC	AGG A	CTA	1.2	<del>1</del> 0
Tyr	Gly	Asp	) His			His	IΙE	: r\a			val	PIC	г гуд		Leu		
				405				. ~~	410					415		12	96
ACG	AGC	: CGG	CAG	CAC	: AGC	CTC	AIC	CIG	AGC	. IAC	. GCC	. GAG	GAL	. GAG	ACA		-0

Thr Ser Arg Gln Gln Ser Leu Ile Leu Ser Tyr Ala Glu Asp Glu Thr
420

GAT GTG GAG GGG ACG GTG AAC GGC GTC ACC CTC ACC AGC TCT GGA AAA

Asp Val Glu Gly Thr Val Asn Gly Val Thr Leu Thr Ser Ser Gly Lys
435

AGA TCC ACT GGA AAC TAG

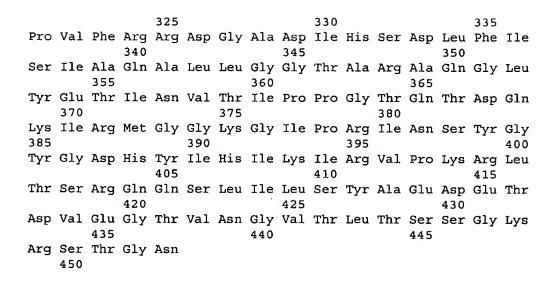
Arg Ser Thr Gly Asn
450

## (2) INFORMATION FOR SEQ ID NO:9:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 453 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein

					E TYPE: protein										
	(>	(i) S	EQUE	ENCE	DESC	RIPT	CION:	SEÇ	) ID	NO: 9	<del>)</del> ;				
Met 1	Ala	Ala	Arg	Cys 5	Ser	Thr	Arg	Trp	Leu 10	Leu	Val	Val	Val	Gly 15	Thr
	Arg	Leu	Pro 20	Ala	Ile	Ser	Gly	Arg 25	Gly	Ala	Arg	Pro	Pro 30	Arg	Glu
Gly	Val	Val		Ala	Trp	Leu	Ser 40	Arg	Lys	Leu	Ser	Val 45	Pro	Ala	Phe
Ala	Ser 50		Leu	Thr	Ser	Cys 55		Pro	Arg	Ala	Leu 60	Leu	Thr	Leu	Arg
Pro 65		Val	Ser	Leu	Thr 70	Gly	Thr	Lys	His	Asn 75	Pro	Phe	Ile	Cys	Thr 80
	Ser	Phe	His	Thr 85	Ser	Ala	Pro	Leu	Ala 90	Lys	Glu	Asp	Tyr	Tyr 95	Gln
Ile	Leu	Gly	Val 100	Pro	Arg	Asn	Ala	Ser 105	Gln	Lys	Glu	Ile	Lys 110	Lys	Ala
_	_	115					120			Asp		125			
	130					135				Ala	140				
145					150					Asp 155					160
Gly	Phe	Asp	Pro	Gly 165	Ala	Ser	Gly	Ser	Gln 170	His	Ser	Tyr	Trp	Lys 175	Gly
Gly	Pro	Thr	Val 180	Asp	Pro	Glu	Glu	Leu 185	Phe	Arg	Lys	Ile	Phe 190	Gly	Glu
		195					200			Thr		205			
Gln	Glu 210	Tyr	Phe	Met	Glu	Leu 215	Thr	Phe	Asn	Gln	Ala 220	Ala	Lys	Gly	Val
225					230					Thr 235					240
				245					250					255	
			260					265		Gly			270		
		275					280			Ser		285			
_	290					295				Lys	300				
Met 305		Pro	Val	Pro	Ala 310		Val	Glu	Asp	Gly 315		Thr	Val	Arg	Met 320

Pro Val Gly Lys Arg Glu Ile Phe Ile Thr Phe Arg Val Gln Lys Ser



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